

U.S. Patent Application No. 09/896,886
Amendment dated March 1, 2006
Reply to Office Action of November 1, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-55. (Cancelled)

56. (Previously presented) A printing plate comprising: a) a substrate and b) a radiation-absorptive layer, wherein the radiation-absorptive layer comprises at least one modified pigment product comprising a pigment having attached at least one organic group represented by the formula -X-Sp-[EI]R, wherein X, which is directly attached to the pigment, represents an arylene, heteroarylene, or alkylene group, Sp represents a spacer group, EI represents an alkyleneimine polymer or copolymer, and R represents hydrogen, a substituted or unsubstituted alkyl group, or a substituted or unsubstituted aryl group.

57. (Currently amended) The printing plate of claim 56, wherein EI is ~~polyethyleimine~~ polyethyleneimine or derivatives of polyethyleneimine.

58. (Previously presented) The printing plate of claim 56, wherein the radiation-absorptive layer further comprises an additional polymer.

59. (Previously presented) The printing plate of claim 58, wherein the additional polymer is a phenolic polymer.

60. (Original) The printing plate of claim 59, wherein the phenolic polymer is a homopolymer or copolymer of an hydroxystyrene or a phenol-formaldehyde polymer.

61. (Previously presented) The printing plate of claim 58, wherein the additional polymer is

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an acrylic polymer.

62. (Original) The printing plate of claim 61, wherein the acrylic polymer is a polymer comprising acrylic acid, methacrylic acid, or salts thereof.

63. (Original) The printing plate of claim 56, wherein the substrate is a hydrophilic metal substrate.

64. (Original) The printing plate of claim 56, wherein the substrate is aluminum or polyester.

65. (Original) A printing plate comprising: a) a substrate and b) a radiation-absorptive layer, wherein the radiation-absorptive layer comprises at least one modified pigment product comprising a pigment having attached at least one organic group represented by the formula -X-Sp-[SMA]R, wherein X, which is directly attached to the pigment, represents an arylene, heteroarylene, or alkylene group, Sp represents a spacer group, SMA represents a styrene-maleic anhydride polymer or derivative, and R represents hydrogen, a substituted or unsubstituted alkyl group, or a substituted or unsubstituted aryl group.

66. (Original) The printing plate of claim 65, wherein SMA is styrene-maleic anhydride or derivatives of styrene-maleic anhydride.

67. (Previously presented) The printing plate of claim 65, wherein the radiation-absorptive layer further comprises an additional polymer.

68. (Previously presented) The printing plate of claim 67, wherein the additional polymer is a phenolic polymer.

69. (Original) The printing plate of claim 68, wherein the phenolic polymer is a homopolymer or copolymer of an hydroxystyrene or a phenol-formaldehyde polymer.

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70. (Previously presented) The printing plate of claim 67, wherein the additional polymer is an acrylic polymer.

71. (Original) The printing plate of claim 70, wherein the acrylic polymer is a polymer comprising acrylic acid, methacrylic acid, or salts thereof.

72. (Original) The printing plate of claim 65, wherein the substrate is a hydrophilic metal substrate.

73. (Original) The printing plate of claim 65, wherein the substrate is aluminum or polyester.

74. (Cancelled)

75. (Previously presented) A printing plate comprising: a) a substrate and b) a radiation-absorptive layer, wherein the radiation-absorptive layer comprises at least one modified pigment product comprising a pigment that is at least partially coated with one or more polymeric coatings, wherein the polymeric coating is not substantially extractable by an organic solvent, and wherein the polymeric coating comprises an acrylic or styrenic polymer.

76. (Previously presented) The printing plate of claim 75, wherein the radiation-absorptive layer further comprises an additional polymer.

77. (Previously presented) The printing plate of claim 76, wherein the additional polymer is a phenolic polymer.

78. (Original) The printing plate of claim 77, wherein the phenolic polymer is a homopolymer or copolymer of an hydroxystyrene or a phenol-formaldehyde polymer.

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79. (Previously presented) The printing plate of claim 76, wherein the additional polymer is an acrylic polymer.
80. (Previously presented) The printing plate of claim 79, wherein the additional acrylic polymer is a polymer comprising acrylic acid, methacrylic acid, or salts thereof.
81. (Previously presented) The printing plate of claim 75, wherein the substrate is a hydrophilic metal substrate.
82. (Previously presented) The printing plate of claim 75, wherein the substrate is aluminum or polyester.
83. (Previously presented) The printing plate of claim 56, wherein the radiation absorbed by the radiation-absorptive layer is infrared or near-infrared.
84. (Previously presented) The printing plate of claim 56, wherein the pigment is carbon black, graphite, vitreous carbon, finely-divided carbon, activated carbon, activated charcoal, or mixtures thereof.
85. (Previously presented) The printing plate of claim 56, wherein the pigment is carbon black.
86. (Previously presented) The printing plate of claim 56, wherein the pigment comprises a white pigment, a black pigment, a blue pigment, a brown pigment, a cyan pigment, a green pigment, a violet pigment, a magenta pigment, a red pigment, a yellow pigment, shades thereof, or combinations thereof.
- 87-110. (Cancelled)
111. (Currently amended) The printing plate of claim 65, ~~wherein the radiation absorbed by the~~

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~~radiation-absorptive layer is infrared or near-infrared~~ wherein the radiation-absorptive layer is absorptive of infrared or near-infrared radiation.

112. (Previously presented) The printing plate of claim 65, wherein the pigment is carbon black, graphite, vitreous carbon, finely-divided carbon, activated carbon, activated charcoal, or mixtures thereof.

113. (Previously presented) The printing plate of claim 65, wherein the pigment is carbon black.

114. (Previously presented) The printing plate of claim 65, wherein the pigment comprises a white pigment, a black pigment, a blue pigment, a brown pigment, a cyan pigment, a green pigment, a violet pigment, a magenta pigment, a red pigment, a yellow pigment, shades thereof, or combinations thereof.

115. (Currently amended) The printing plate of claim 75, ~~wherein the radiation absorbed by the radiation-absorptive layer is infrared or near-infrared~~ wherein the radiation-absorptive layer is absorptive of infrared or near-infrared radiation.

116. (Previously presented) The printing plate of claim 75, wherein the pigment is carbon black, graphite, vitreous carbon, finely-divided carbon, activated carbon, activated charcoal, or mixtures thereof.

117. (Previously presented) The printing plate of claim 75, wherein the pigment is carbon black.

118. (Previously presented) The printing plate of claim 75, wherein the pigment comprises a white pigment, a black pigment, a blue pigment, a brown pigment, a cyan pigment, a green

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pigment, a violet pigment, a magenta pigment, a red pigment, a yellow pigment, shades thereof,
or combinations thereof.